

I. Amendments to the Claims

This listing will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): A process for producing 2,2,3,3-tetrafluorooxethane, which comprises allowing tetrafluoroethylene to react with paraformaldehyde in anhydrous hydrogen fluoride, said reaction being carried out in the presence of polyfluoroalkylcarboxylic acid or polyfluoroalkyl ester thereof: represented by the following ~~general~~ formula:



wherein Rf is a polyfluoroalkyl group having 1-5 carbon atoms, and Rf' is a hydrogen atom or a polyfluoroalkyl group having 1-5 carbon atoms.

Claim 2 (Currently amended): A process for producing 2,2,3,3-tetrafluorooxethane according to Claim 1, wherein the carboxylic acid, represented by the ~~general~~ formula RfCOORf' , is CF_3COOH .

Claim 3 (Currently amended): A process for producing 2,2,3,3-tetrafluorooxethane according to Claim 1, where the carboxylic acid ester, represented by the ~~general~~ formula RfCOORf' , is $\text{CF}_3\text{COOCH}_2\text{CF}_2\text{CF}_3$.

Claim 4 (Currently amended): A process for producing 2,2,3,3-tetrafluorooxethane according to Claim 1, where the carboxylic acid ester, represented by the ~~general~~ formula RfCOORf' , is $\text{CF}_3\text{COOCH}_2\text{CF}_3$.

Claim 5 (Currently amended): A process for producing 2,2,3,3-tetrafluorooxetane, which comprises allowing tetrafluoroethylene to react with trioxane in anhydrous hydrogen fluoride, said reaction being carried out in the presence of polyfluoroalkylcarboxylic polyfluoroalkyle acid or polyfluoroalkyl ester thereof represented by the following ~~general~~ formula:



wherein Rf is a polyfluoroalkyl group having 1-5 carbon atoms, and Rf' is a hydrogen atom or a polyfluoroalkyl group having 1-5 carbon atoms.

Claim 6 (Currently amended): A process for producing 2,2,3,3-tetrafluorooxethane according to Claim 6, ~~1~~, wherein the carboxylic acid, represented by the ~~general~~ formula RfCOORf' , is CF_3COOH .

Claim 7 (Currently amended): A process for producing 2,2,3,3-tetrafluorooxethane according to Claim 6, ~~1~~, where the carboxylic acid ester, represented by the ~~general~~ formula RfCOORf' , is $\text{CF}_3\text{COOCH}_2\text{CF}_2\text{CF}_3$.

Claim 8 (Currently amended): A process for producing 2,2,3,3-tetrafluorooxethane according to Claim 6, ~~1~~, where the carboxylic acid ester, represented by the ~~general~~ formula RfCOORf' , is $\text{CF}_3\text{COOCH}_2\text{CF}_3$.